

# **Proposed Plan to Improve Accuracy and Transparency of Savings Estimates in the Energy Commission Forecast**

Itron Presentation

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IEPR Policy Workshop on Quantification of Savings Impacts  
from Programs, Standards, and other Market Forces

# Overview

- Two Objectives:
  - Improve accuracy of annual and peak savings estimates included in base forecast and uncommitted estimates
  - Improve the transparency of the level of future savings in the forecast and the drivers of savings change
- Phase 1 - Discuss and Modify Definitions and Overall Approach
- Phase 2 - Review of Methods and Data Inputs- forecast vs. potential models
- Phase 3 - Comparison of Savings Outputs and Calibration Processes Used by Models
- Phase 4 - Production of Improved Estimates of Conservation/ Efficiency Reasonably Expected to Occur in Base Forecast

# Phase 1- Common Approach and Definitions

- Identify what types of program and non-program impacts will be quantified in this IEPR cycle and develop a common baseline assumptions - what would have happened in the absence of programs/market change?
- Develop common terms and agreement on what types of program or market impact can or should be reported in forecast outputs.
- Discuss and agree on criteria to be used to define savings reasonably expected to occur (program types, cut off years, base year).

## Phase 2- Improvement in Quantification Methods and Data Inputs

- Review of methods used in Energy Commission and Conservation potential models (paper).
- Review of inputs used to characterize impacts of 2006-2008 utility programs and appliance and building standards (including underlying trends in naturally occurring efficiency or energy intensity changes).
- Review of end use and measure saturations in baseline runs.
- Development of common data input sets to use in calibrating savings estimates derived from identical input sets in next step.
- Publish improvements in methods based on learning from above.

## Phase 3- Comparison of Interim Program Savings Estimates between models

- Select a common set of programs and standards for use in comparison exercise. (Lighting, HVAC programs)
- Compare data inputs and sources used to characterize future impacts of programs/standards.
- Isolate impacts of program, naturally occurring and price-induced impacts sequencing in calculation models.
- Identify most important drivers in differences in savings impacts between models.
- Publish improved data sets and identify based on lessons from above to what extent forecasting model captures savings attributed to programs in potential models.

## Phase 4 - Production of Improved Savings Estimates in Baseline Forecast

- Perform calibration analysis – Assess accuracy of model backcasts after all committed savings impacts are included. Scenario analysis to make adjustments to program savings and market-driven savings inputs to get best fit with historical data.
- Iterate to find best fits and then publish revised estimates of savings attributed to naturally occurring market changes, prices, programs and standards.
- Publish revised methods, inputs and outputs for efficiency analysis to improve transparency.

## Phase 5 - Improve Uncommitted Savings Analysis

- Investigate options to develop this new forecasting capability within Energy Commission model.
- Discuss scope of potential programs or standards savings that should be included in this effort with policy committee.
- Discuss and agree on criteria to be used in deciding what types of programs should be included and for how far out in the future.
- Publish staff recommendation on preferred option to improve long term savings quantification capability and perhaps pursue initial quantification of uncommitted in this round of the IEPR. Other options include use of current or modified goals adopted by the CPUC.

# Plan Schedule

Analysis Phase	Time Frame
Step 1 - Develop common terms and approach	August - September 2008
Step 2 - Methods and inputs comparison	September - October 2008
Step 3 - Comparison of Savings outputs and Calibration of savings to historic sales	October - November 2008
Step 4 - Implement improvements to Energy Commission model and produce savings documentation volume to accompany draft Energy Commission electricity forecast	December - February, 2009
Develop an Uncommitted Energy Efficiency projection capability	June - July 2009



# Request for Comments

- Comments on potential steps missing in Analysis Plan.
- Comments on usefulness of committed and uncommitted savings concepts and criteria to be used.
- Comments on scope of uncommitted savings quantification exercise.
- Comments on feasibility of overall schedule.